

Introduction

As the Army transforms to a more strategically responsive force that is dominant across the full spectrum of military operations, commanders must have comprehensive situational awareness to succeed in the complex operating environment of the 21st century battlefield. The Army Airborne Command and Control System (A2C2S) will help the Army do this through development and fielding of a highly mobile, advanced, on-the-move C2 system hosted on the UH-60L BLACK HAWK helicopter.

The A2C2S is specifically designed to meet the maneuver commander's requirement for an airborne C2 vehicle command post. The A2C2S provides the commander with the ability to "see" his portion of the battlespace, exercise C2 from any location, control his part of the battle, and rapidly respond to fluid combat situations. The A2C2S provides the maneuver commander an airborne tactical command post (TACCP) with the same digital capabilities he has in his ground TACCP. This versatile command post allows the commander to exploit the third dimension of the battlespace as he commands and controls his units.

Description

The A2C2S is an on-the-move C2 system that will enable commanders and their staffs to maintain digital connectivity while operating from a temporary remote site or moving through the battlespace at speeds up to 300 kilometers per hour. The C2 system consists of two components: an A-Kit and a B-Kit. The A-Kit is permanently affixed to the host aircraft, the UH-60L BLACK HAWK, and will consist of antennas, wiring, floor modifications, and aircraft interfaces (power, structural, etc.) to enable installation of the B-Kit in the aircraft.

The B-Kit consists of operator workstations, computer systems, and the necessary communications equipment to host and support the C2 process. The system will have voice and data equipment that provides battlefield information processing and connectivity equivalent to a TACCP, a jump tactical operations center, and the commander's vehicle. It provides the warfighter the communication and data processing capabilities necessary

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to interface with subordinate and adjacent forces and receive taskings from higher headquarters. The A2C2S provides both voice and data interoperability with U.S. military Services and voice compatibility with government agencies, civilian agencies, and services of allied nations.

The Army's current utility helicopter, the UH-60L BLACK HAWK (and newer models), will host the Army's new A2C2S. The A2C2S allows the commander and his staff to maintain voice and digital connectivity with required command-post elements. The A2C2S replicates the systems and connectivity found in a digitized ground brigade commander's TACCP. It provides the maneuver commander a rapidly deployable means of C2, which he can deploy worldwide to support any mission.

Commanders can use the A2C2S to command and control units engaged in military operations ranging from humanitarian assistance to high-intensity conflict. This gives the commander great flexibility by providing him with the C2 systems he uses on the ground, while allowing him to quickly position himself at the decisive point on the battlefield.

A-Kit And B-Kit

The selected A2C2S A-Kit and B-Kit design approach, derived from incremental evolution of the validated and demonstrated open architecture Aviation Applied Technology Directorate (AATD) baseline, meets all perform-

ance requirements through a low-risk development program with high growth potential. The A-Kit is similar to the AATD demonstrator configuration except that the replacement flooring for the UH-60L supports all of the tie-downs for standard loading configurations, thus increasing platform utility.

The B-Kit design also evolved from the AATD demonstrator configuration. It incorporated all designs into one electronic model containing the aircraft systems critical to B-Kit design and installation.

B-Kit components are segregated into communications and maneuver commander's environment (MCE). The MCE console includes mounting provisions for the intercom system when in the A2C2S conference configuration.

Source Selection

The A2C2S acquisition was conducted as a negotiated procurement with full and open competition. An informal source selection was conducted to select a single proposal that offered the government the best value, considering cost and price and other noncost factors.

Consideration for the award was based on management, technical, cost, and past-performance factors. The technical factor was slightly more important than management; management was more important than cost; and cost was more important than past performance. All noncost evaluation factors combined were significantly more important than cost. The signifi-

cant subfactors of each factor, corresponding to the significant objectives of the program, were evaluated and assigned one of five possible adjectival ratings, ranging from unsatisfactory to excellent.

The Award

The contract award was made to the offeror whose proposal provided the best value to the government. The basic contract was awarded on a cost-plus-incentive-fee (CPIF) basis for delivery of a software integration system, four A2C2S trainer/demonstrator systems, six A2C2S prototypes, and achievement of airworthiness qualification of the system. The prototype systems will be used for in-plant contractor development and testing, special operation aviation regiment integration, and the limited user test leading up to a Milestone C decision authorizing entry into low rate initial production (LRIP). A key data deliverable from the design and test effort will be the modification work order authorizing the A-Kit installation to the UH-60L airframe.

The contract includes fixed-price incentive options for 12 LRIP A2C2Ss consisting of 12 B-Kits and 17 A-Kits, and 17 full-rate production A2C2Ss consisting of 17 B-Kits and 20 A-Kits. The options were structured to allow the purchase quantity to be tailored to the funds available at the time the option is exercised.

The contract includes several special provisions and clauses. The first special provision assigns total system responsibility to the contractor. This provision requires the contractor to fully integrate the various A2C2S components onto the UH-60L platform, regardless of the source (nondevelopmental item, commercial off-the-shelf, contractor-furnished equipment, or government-furnished equipment). A second special provision details the contractor's responsibilities for receipt, inspection, maintenance, storage, and security of government-furnished (GF) UH-60L aircraft. This provision complements the requirements of the government property (cost-reimbursement contracts) clause. The contract also includes the ground and flight risk clause to cover contractor

responsibilities while operating the GF aircraft.

Summary

The A2C2S was acquired by a team of professionals from the U.S. Army Aviation and Missile Command's (AMCOM's) Acquisition Center, Redstone Arsenal, AL, using acquisition reform initiatives (ARIs) in the procurement process. An integrated product team prepared the requirement documents, the Statement Of Work, and the Request For Proposal (RFP). One of the team's actions was to develop a requirement that took advantage of all available technologies in the marketplace.

The RFP was issued via electronic media as a paperless, full and open, best-value, performance-based competitive solicitation. Five offerors submitted proposals. The best-value approach for a full and open competitive acquisition strategy included a proper balance between technical, management, cost, and past-performance factors.

The RFP was structured to encourage prime contractors submitting proposals to use small and disadvantaged businesses as subcontractors to the maximum extent possible. This was an evaluation factor during the source-selection process. This approach ensured increased small and disadvantaged business participation. The procurement lead time for this acquisition was very short and required a commitment to teamwork to ensure that the evaluation allowed for best-value considerations and took advantage of evolving technologies in the marketplace. The delivery schedule imposed by the Army was extremely ambitious. The evaluation considered risk in all aspects of the contractors' proposals to determine performance capability, and the risk factor was significant in the evaluation process.

Two aspects of the evaluation process that enhanced and accelerated the evaluation were oral presentations by offerors to the evaluation board members and the use of an online electronic database tracking system for the evaluation of proposals. The government evaluation team heard each contractor's oral technical presentation,

asked follow-up questions, and clarified each offeror's concerns.

The oral presentations saved time and resulted in more open communication between industry and government. They also resulted in an increased understanding of the work to be performed and the contractor's approach. The evaluators were able to gain a clearer insight as to the particulars that made up the contractors' proposals. Those areas requiring clarification were addressed during this process. As a result, the evaluation time was significantly reduced. The use of an online electronic database tracking system for evaluation of proposals at the factor and subfactor levels streamlined the evaluation process, reduced the evaluators' response time, and allowed immediate accessibility and critical collaboration capability among board members.

During the proposal process, each offeror was instructed to execute and sign a model contract as part of their final proposal. This initiative reduced the lead time for contract award. Once the winning proposal was identified, the contract was awarded within 2 days.

The contract uses a hybrid of contract types, including CPIF, fixed-priced-incentive, and cost-plus-fixed-fee. The total proposal, evaluation, and contract award time for this performance-based, best-value procurement was 147 days. The projected dollar savings resulting from competition and the use of ARIs during the process is 10-15 percent of the total contract value.

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